

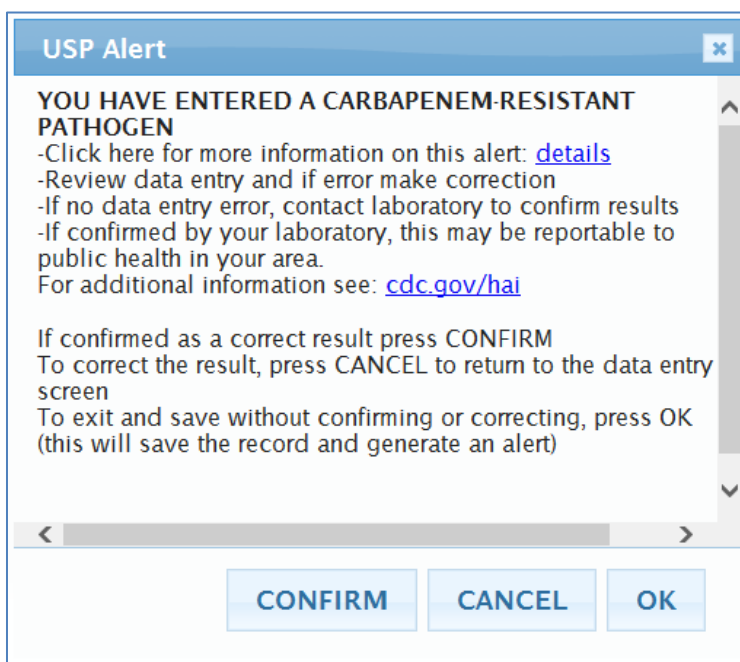
Unusual Susceptibility Profiles Alert

National Healthcare Safety Network (NHSN) is a surveillance system for healthcare-associated infections (HAIs) that includes data collection on antimicrobial susceptibility testing results for certain reported pathogens. Microorganisms with specific resistance patterns are of epidemiological significance and can have substantial infection control implications. The importance of early detection and implementation of intervention measures to prevent transmission and propagation cannot be understated. Redundancy across many systems to ensure identification of these important unusual susceptibility profiles is beneficial. Beginning in the summer of 2014, NHSN will notify users when any of the twelve unusual susceptibility profiles listed below and further described in the Unusual Susceptibility Profiles Alert Table (found at the end of document) are reported to NHSN. This will apply to in-plan events only.

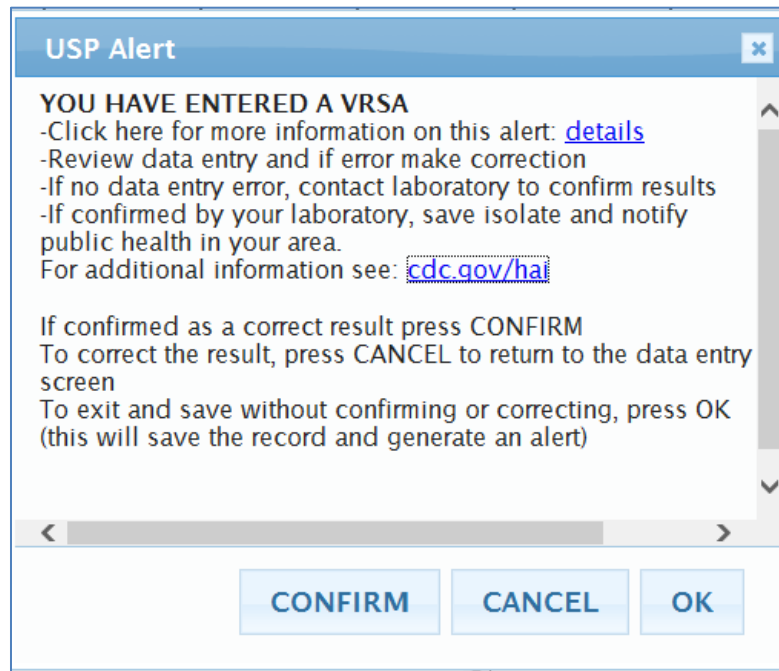
1. Carbapenem-intermediate or -resistant Enterobacteriaceae
2. Carbapenem-intermediate or -resistant *Acinetobacter baumannii*
3. Carbapenem-intermediate or -resistant *Pseudomonas aeruginosa*
4. Highly Drug-Resistant Enterobacteriaceae
5. Highly Drug-Resistant *Pseudomonas aeruginosa*
6. Highly Drug-Resistant *Acinetobacter baumannii*
7. Colistin/Polymyxin B-resistant *Acinetobacter baumannii*
8. Colistin/Polymyxin B-resistant *Pseudomonas aeruginosa*
9. Daptomycin non-susceptible and Linezolid-resistant *Enterococcus* spp.
10. Vancomycin-resistant *Staphylococcus aureus* (VRSA)
11. Daptomycin non-susceptible and Linezolid-resistant and Vancomycin-intermediate *Staphylococcus aureus*
12. Vancomycin-resistant *Staphylococcus*, coagulase negative (VRSE)

When a user enters a pathogen's susceptibility testing result into the NHSN application that aligns with one of the unusual susceptibility profiles, upon saving the event, a "pop-up" message will appear on the screen. The message text will be tailored to the specific profile identified. There are three message types.

1. CR (Carbapenem-Resistant)



2. VRSA (Vancomycin-Resistant *Staphylococcus aureus*)



USP Alert

YOU HAVE ENTERED A VRSA

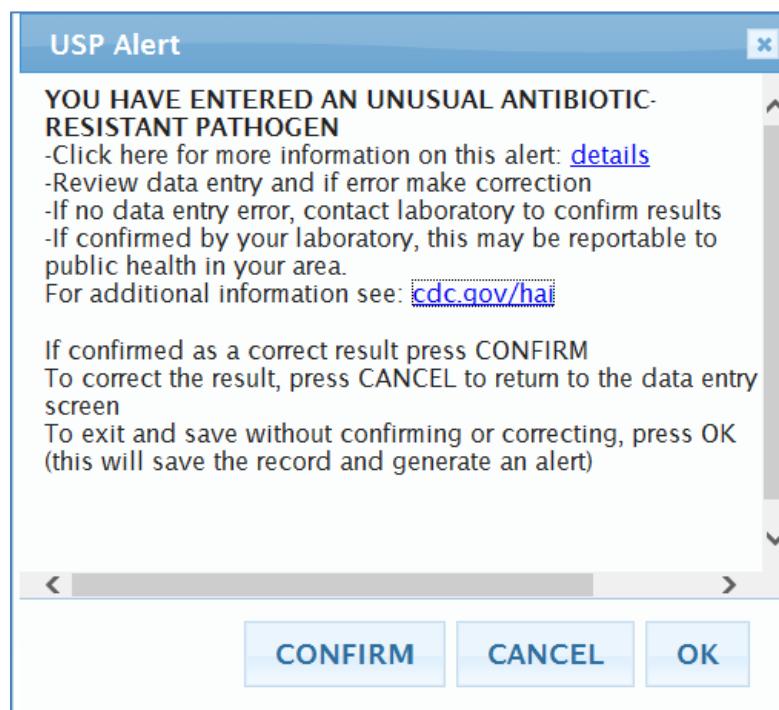
- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction
- If no data entry error, contact laboratory to confirm results
- If confirmed by your laboratory, save isolate and notify public health in your area.

For additional information see: cdc.gov/hai

If confirmed as a correct result press CONFIRM
To correct the result, press CANCEL to return to the data entry screen
To exit and save without confirming or correcting, press OK
(this will save the record and generate an alert)

CONFIRM **CANCEL** **OK**

3. Other



USP Alert

YOU HAVE ENTERED AN UNUSUAL ANTIBIOTIC-RESISTANT PATHOGEN

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction
- If no data entry error, contact laboratory to confirm results
- If confirmed by your laboratory, this may be reportable to public health in your area.

For additional information see: cdc.gov/hai


If confirmed as a correct result press CONFIRM
To correct the result, press CANCEL to return to the data entry screen
To exit and save without confirming or correcting, press OK
(this will save the record and generate an alert)

CONFIRM **CANCEL** **OK**

When a message appears the user will have the ability to do one of the following:











- Verify the data entry as accurate by selecting “Confirm.” This will complete the “Save” process.
- Return to the event susceptibility data entry screen by choosing “Cancel.” The user can review and amend incorrect data entry if necessary.
- Acknowledge the notification by selecting “OK.” This selection will enable the user to complete the “Save” process without verifying or editing the data entry. This will generate an Alert on the Alerts screen. The Alert will appear under the Alert tab labeled “Unusual Susceptibility Profile” and will display the type of Alert message, as well as, the profile identified. The user will have the ability to return to the event susceptibility data entry screen at a later point in time, directly from the Alert tab. The Alert will remain until the unusual susceptibility profile is verified to be accurate by selecting “Confirm” or amending the data entry such that an unusual susceptibility profile is no longer identified.

Events with unusual pathogen susceptibility results



What are Unusual Susceptibility Profiles?



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Patient ID	Last Name	First Name	Event #	Event Type	Date Admitted to Facility	Pathogen	Result Causing Alert	Alert Message Type	Unusual Susceptibility Profile Code
C061707G			44206 	UTI	05/19/2014	KP		OTHER	HDR_E
CG061703			44182 	BSI	05/05/2014	KP		OTHER	CRE
CG061708			44207 	UTI	05/12/2014	ACBA		OTHER	HDR_E
CG06171			44180 	BSI	05/01/2014	EA		CR	CRE
CG061710			44220 	BSI	05/19/2014	SA		VRSA	VR_SA
CG061710			44209 	UTI	05/12/2014	PA		OTHER	HDR_PA
CG061710			44209 	UTI	05/12/2014	PA		OTHER	PR_PA
CG061711			44211 	UTI	05/30/2014	SA		OTHER	HDR_SA
CG061713			44219 	BSI	05/15/2014	PA		OTHER	HDR_PA
CG061713			44219 	BSI	05/15/2014	PA		OTHER	PR_PA

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Save Reset

[Print this report](#)
[Display All](#)

When an Unusual Susceptibility Profile Alert “pop-up” message appears the user can select the “details” link to gather additional information.

USP Alert

YOU HAVE ENTERED A CARBAPENEM-RESISTANT PATHOGEN

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction
- If no data entry error, contact laboratory to confirm results
- If confirmed by your laboratory, this may be reportable to public health in your area.

For additional information see: cdc.gov/hai

If confirmed as a correct result press CONFIRM
To correct the result, press CANCEL
To exit and save without confirming or correcting, press OK (this will save the record as is)

Unusual Susceptibility Profile Alert Details

The following results are generating this alert:

Pathogen: Pseudomonas aeruginosa

IMI=R

CONFIRM OK

USP Alert

YOU HAVE ENTERED AN UNUSUAL ANTIBIOTIC RESISTANT PATHOGEN

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction
- If no data entry error, contact laboratory to confirm results
- If confirmed by your laboratory, this may be reportable to public health in your area.

For additional information see: [cdc.gov/hai](#)

If confirmed as a correct result press CONFIRM
To correct the result, press CANCEL
To exit and save without confirming or correcting, press OK (this will save the record as is)

Unusual Susceptibility Profile Alert Details

The following results are generating this alert:

Pathogen: Acinetobacter baumannii

CEFEP=R, LEVO=R, AMK=R, MERO=R, PIP=R, AMPSUL=R

CONFIRM OK

Pathogens [HELP](#)

Pathogen 1: *Staphylococcus aureus* -SA Search 13 drugs required

USP Alert

YOU HAVE ENTERED A VRSA

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction
- If no data entry error, contact laboratory to confirm results
- If confirmed by your laboratory, save isolate and notify public health in your area.

For additional information see: cdc.gov/hai

If confirmed as a correct result press CONFIRM
To correct the result, press CANCEL to return to the data entry screen
To exit and save without confirming or correcting, press OK (this will save the record as is)

Unusual Susceptibility Profile Alert Details

The following results are generating this alert:

Pathogen: Staphylococcus aureus

VANC=R

The user will be able to generate line list and frequency table outputs in Analysis. The output option can be found in the Advanced folder within the Pathogen-level Data sub-folder. The output will identify the profiles identified, the number of each, and in addition, whether the profile has been verified to be accurate or if the profile is pending verification.

The screenshot displays the NHSN Patient Safety Component interface. The top header includes the CDC logo and the text "Department of Health and Human Services Centers for Disease Control and Prevention". Below this, a navigation bar shows "NHSN Home" and a login status: "Logged into DHQP Memorial Annex (ID 10401) as WJA3. Facility DHQP Memorial Annex (ID 10401) is following the PS component." The main content area is titled "Patient Safety Component Analysis Output Options" with a "HELP" link. A left sidebar contains a menu with items like Alerts, Reporting Plan, Patient, Event, Procedure, Summary Data, Import/Export, Analysis, Surveys, Users, Facility, Group, and Log Out. The "Analysis" section is expanded, showing a list of modules including Device-Associated Module, Procedure-Associated Module, MDRO/CDI Module (Infection Surveillance, LABID Event Reporting, Process Measures, Outcome Measures), Antimicrobial Use and Resistance Module, CMS Reports, and Advanced. Under the Advanced module, there is a "Create New custom Option" link and a list of data levels: Patient-level Data, Event-level Data, Procedure-level Data, Summary-level Data, Plan Data, Pathogen-level Data, and CDC Defined Output. The CDC Defined Output section is expanded, showing three options: "Line Listing - Antibigram", "Line Listing- Unusual Antibiotic Susceptibilities", and "Frequency Table - Unusual Antibiotic Susceptibilities". Each option has "Run" and "Modify" buttons. A red arrow points to the "Frequency Table - Unusual Antibiotic Susceptibilities" option.

Unusual Susceptibility Profiles Alert Table

Unusual Susceptibility Profiles	Profile Codes	Definition of Unusual Susceptibility Profiles	Alert Message Type
Carbapenem-intermediate or -resistant Enterobacteriaceae	CRE	Carbapenem (imipenem, meropenem, doripenem, ertapenem) is Intermediate(I) or Resistant(R)	CR
Highly Drug-Resistant Enterobacteriaceae	HDR_E	Defined as highly drug-resistant if all five drug classes have at least one drug within the class reported as either Intermediate(I) or Resistant(R): <ul style="list-style-type: none"> Extended spectrum cephalosporin (cefepime, cefotaxime, ceftriaxone, ceftazidime) Fluoroquinolones (ciprofloxacin, levofloxacin, moxifloxacin) Aminoglycosides (amikacin, gentamicin, tobramycin) Carbapenems (imipenem, meropenem, doripenem, ertapenem) Piperacillin/tazobactam 	Other
Colistin/Polymyxin B-resistant <i>Pseudomonas aeruginosa</i>	PR_PA	Colistin/polymyxin B is Intermediate(I) or Resistant(R)	Other
Carbapenem-intermediate or -resistant <i>Pseudomonas aeruginosa</i>	CR_PA	Carbapenem (imipenem, meropenem, doripenem) is Intermediate(I) or Resistant(R)	CR
Highly Drug-Resistant <i>Pseudomonas aeruginosa</i>	HDR_PA	Defined as highly drug-resistant if all five drug classes have at least one drug within the class reported as either Intermediate(I) or Resistant(R): <ul style="list-style-type: none"> Extended spectrum cephalosporin (cefepime, ceftazidime), Fluoroquinolones (ciprofloxacin, levofloxacin) Aminoglycosides (amikacin, gentamicin, tobramycin) Carbapenems (imipenem, meropenem, doripenem) Piperacillin or piperacillin/tazobactam 	Other
Colistin/Polymyxin B-resistant <i>Acinetobacter baumannii</i>	PR_ACBA	Colistin/polymyxin B is Resistant(R)	Other
Carbapenem-intermediate or -resistant <i>Acinetobacter baumannii</i>	CR_ACBA	Carbapenem (imipenem, meropenem, doripenem) is Intermediate(I) or Resistant(R)	CR
Highly Drug-Resistant <i>Acinetobacter baumannii</i>	HDR_ACBA	Defined as highly drug-resistant if all six drug classes have at least one drug within the class reported as either Intermediate(I) or Resistant(R): <ul style="list-style-type: none"> Extended spectrum cephalosporin (cefepime, ceftazidime), Fluoroquinolones (ciprofloxacin, levofloxacin) Aminoglycosides (amikacin, gentamicin, tobramycin) Carbapenems (imipenem, meropenem, doripenem) Piperacillin or piperacillin/tazobactam Ampicillin/sulbactam 	Other
Daptomycin non-susceptible and Linezolid-resistant <i>Enterococcus</i> spp.	HDR_ENTSP	Daptomycin is Non Susceptible(NS) AND Linezolid is Resistant(R)	Other
Vancomycin-resistant <i>Staphylococcus aureus</i> (VRSA)	VR_SA	Vancomycin is Resistant(R)	VRSA
Daptomycin non-susceptible and Linezolid-resistant and Vancomycin-intermediate <i>Staphylococcus aureus</i>	HDR_SA	Daptomycin is Non Susceptible(NS) AND Linezolid is Resistant(R) AND Vancomycin is Intermediate(I)	Other
Vancomycin-resistant <i>Staphylococcus</i> , coagulase negative (VRSE)	VR_CSN	Vancomycin is Resistant(R)	Other